

SEQUENCE LISTING

<110> SAKAKI, Yoshiyuki

<120> Mammalian Genes Involved in Circadian Periods

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<150> JP 9-267846

<151> 1997-09-12

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His Arg Pro Cys Pro Gly Pro Ser Leu Ala Asp Asp Thr Asp Ala Asn
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Ser Asn Gly Ser Ser Gly Asn Glu Ser Asn Gly His Glu Ser Arg Gly
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Ala Ser Gln Arg Ser Ser His Ser Ser Ser Ser Gly Asn Gly Lys Asp
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Ser Ala Leu Leu Glu Thr Thr Glu Ser Ser Lys Ser Thr Asn Ser Gln
85 90 95

Ser Pro Ser Pro Pro Ser Ser Ser Ile Ala Tyr Ser Leu Leu Ser Ala

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Thr Leu Ala Thr Leu Gln Tyr Ala Leu Ala Cys Val Lys Gln Val Gln		
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Ala Asn Gln Glu Tyr Tyr Gln Gln Trp Ser Leu Glu Glu Gly Glu Pro		
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Cys Ser Met Asp Met Ser Thr Tyr Thr Leu Glu Glu Leu Glu His Ile		
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Thr Ser Glu Tyr Thr Leu Gln Asn Gln Asp Thr Phe Ser Val Ala Val		
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Leu Leu Ala Pro Gln Asp Val Gly Val Phe Tyr Gly Ser Thr Ala Pro		
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Ser Arg Leu Pro Thr Trp Gly Thr Gly Ala Ser Ala Gly Ser Gly Leu		
	275	280 285
Arg Asp Phe Thr Gln Glu Lys Ser Val Phe Cys Arg Ile Arg Gly Gly		
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Leu Leu Gln Pro Val His Ser Pro Ser Pro Thr Gly Leu Cys Gly Val
500 505 510

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Arg Cys Ser Ser Pro Leu Gln Leu Asn Leu Leu Gln Leu Glu Glu Leu
980 985 990

Pro Arg Ala Glu Gly Ala Ala Val Ala Gly Gly Pro Gly Ser Ser Ala
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Gly Pro Pro Pro Pro Ser Ala Glu Ala Ala Glu Pro Glu Ala Arg Leu
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Val Ile Lys Tyr Val Leu Gln Asp Pro Ile Trp Leu Leu Met Ala Asn
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Thr Ser Val Leu Lys Gln Asp Arg Glu Arg Leu Arg Ala Met Gln Lys
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Gln Gln Pro Arg Phe Ser Glu Asp Gln Arg Arg Glu Leu Gly Ala Val
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2386	2387				

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Pro Leu Phe Ser Glu Leu Asp Gly Leu Gly Leu Glu Pro Met Glu Glu

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Gly Gly Gly Glu Gly Gly Gly Cys Gly Val Gly Gly Gly Gly Gly Asp

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Gly Gly Glu Glu Ala Gln Thr Gln Ile Gly Ala Lys Gly Ser Ser Ser

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His Arg Pro Cys Pro Gly Pro Ser Leu Ala Asp Asp Thr Asp Ala Asn

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Cys	Leu	Leu	Ile	Ala	Glu	Arg	Ile	His	Ser	Gly	Tyr	Glu	Ala	Pro	Arg	
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tgc	ctg	ctg	att	gca	gag	cgc	atc	cat	tgc	ggc	tac	gaa	gct	ccc	cgg	1056
Cys	Leu	Leu	Ile	Ala	Glu	Arg	Ile	His	Ser	Gly	Tyr	Glu	Ala	Pro	Arg	
			340				345					350				

tgc	ctg	ctg	att	gca	gag	cgc	atc	cat	tgc	ggc	tac	gaa	gct	ccc	cgg	1056
Cys	Leu	Leu	Ile	Ala	Glu	Arg	Ile	His	Ser	Gly	Tyr	Glu	Ala	Pro	Arg	
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tgc	ctg	ctg	att	gca	gag	cgc	atc	cat	tgc	ggc	tac	gaa	gct	ccc	cgg	1056
Cys	Leu	Leu	Ile	Ala	Glu	Arg	Ile	His	Ser	Gly	Tyr	Glu	Ala	Pro	Arg	
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tgc	ctg	ctg	att	gca	gag	cgc	atc	cat	tgc	ggc	tac	gaa	gct	ccc	cgg	1056
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tgc	ctg	ctg	att	gca	gag	cgc	atc	cat	tgc	ggc	tac	gaa	gct	ccc	cgg	1056
Cys	Leu	Leu	Ile	Ala	Glu	Arg	Ile	His	Ser	Gly	Tyr	Glu	Ala	Pro	Arg	
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tgc	ctg	ctg	att	gca	gag	cgc	atc	cat	tgc	ggc	tac	gaa	gct	ccc	cgg	1056
Cys	Leu	Leu	Ile	Ala	Glu	Arg	Ile	His	Ser	Gly	Tyr	Glu	Ala	Pro	Arg	
			340				345					350				

tgc	ctg	ctg	att	gca	gag	cgc	atc	cat	tgc	ggc	tac	gaa	gct	ccc	cgg	1056
Cys	Leu	Leu	Ile	Ala	Glu	Arg	Ile	His	Ser	Gly	Tyr	Glu	Ala	Pro	Arg	
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Ala Asp Gln Arg Val Met Met Thr Tyr Gln Val Pro Ser Arg Asp Met	
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Thr Ser Val Leu Lys Gln Asp Arg Glu Arg Leu Arg Ala Met Gln Lys	
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 Gly Glu Pro Phe Cys Pro Gly Gly Val Pro Ser Pro Gly Ala Pro Gln
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 His Arg Pro Cys Pro Gly Pro Ser Leu Ala Asp Asp Thr Asp Ala Asn
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Year	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

tgc agc tcc cca ctc cag ctc aat ctg ctg cag ctt gag gag tcc ccc 2976
Cys Ser Ser Pro Leu Gln Leu Asn Leu Leu Gln Leu Glu Glu Ser Pro
980 985 990

Asp Gln Arg Val Met Met Thr Tyr Gln Val Pro Ser Arg Asp Ala Ala
 1140 1145 1150

tct gtg ctg aag caa gac cgg gag agg ctc cgg gcc atg cag aaa cag 3504
 Ser Val Leu Lys Gln Asp Arg Glu Arg Leu Arg Ala Met Gln Lys Gln
 1155 1160 1165

cag cca cgg ttc tca gag gac cag agg cgg gaa ctg ggt gct gtg cac 3552
 Gln Pro Arg Phe Ser Glu Asp Gln Arg Arg Glu Leu Gly Ala Val His
 1170 1175 1180

tcc tgg gtc cgg aag ggc cag ctg cct cgg gcc ctt gat gtg atg gcg 3600
 Ser Trp Val Arg Lys Gly Gln Leu Pro Arg Ala Leu Asp Val Met Ala
 1185 1190 1195 1200

tgt gtg gac tgt ggc agc agc gtt caa gat cct ggc cac tct gat gac 3648
 Cys Val Asp Cys Gly Ser Ser Val Gln Asp Pro Gly His Ser Asp Asp
 1205 1210 1215

ccg ctc ttc tca gaa ctg gat gga ttg ggg ctg gag ccc atg gaa gag 3696
 Pro Leu Phe Ser Glu Leu Asp Gly Leu Gly Leu Glu Pro Met Glu Glu
 1220 1225 1230

ggt gga ggc gag ggt ggt ggg tgt ggt gtt ggc ggc ggt ggg ggt gat 3744
 Gly Gly Gly Glu Gly Gly Gly Cys Gly Val Gly Gly Gly Gly Gly Asp
 1235 1240 1245

ggt ggt gag gag gcc cag acc caa att ggg gct aag ggt tca agc tct 3792
 Gly Gly Glu Glu Ala Gln Thr Gln Ile Gly Ala Lys Gly Ser Ser Ser
 1250 1255 1260

cag gac tct gcc atg gag gaa gaa gag caa ggt ggg ggc tca tcc agc 3840
 Gln Asp Ser Ala Met Glu Glu Glu Glu Gln Gly Gly Gly Ser Ser Ser
 1265 1270 1275 1280

cca gct tta cct gca gaa gaa aac agc acc agc tag 3876
 Pro Ala Leu Pro Ala Glu Glu Asn Ser Thr Ser
 1285 1290

3504
 3552
 3600
 3648
 3696
 3744
 3792
 3840
 3876